

IN THE CLAIMS

Claims 2-3 are pending in this application. Please amend claims 2-3 as follows:

1. (Canceled)
2. (Currently Amended) A method for purifying semiconductor nanoparticles, comprising the steps of:

modifying semiconductor nanoparticles with oil-soluble materials for surface modification;

converting the oil-soluble materials for surface modification into water-soluble materials for surface modification at the interface between an organic solvent and water;

shifting the semiconductor nanoparticles from an organic phase to an aqueous phase by the conversion;

removing impurities other than semiconductor nanoparticles;

setting a wavelength of monochromatic light for size-selective etching to be shorter than a wavelength of absorption edge of the semiconductor nanoparticles having at least one desired particle size so as to dissolve and peel the surface of the semiconductor nanoparticles by size-selective photoetching, regulate desired particle sizes of the semiconductor nanoparticles and monodisperse the semiconductor nanoparticles; and then

subjecting applying size-selective photoetching to the semiconductor nanoparticles so as to regulate particle sizes of the semiconductor nanoparticles and monodisperse the semiconductor nanoparticles, the surfaces of which have been modified with the water-soluble materials for surface modification, ~~to size-selective photoetching, wherein the semiconductor nanoparticles are irradiated by irradiating the semiconductor nanoparticles with monochromatic light of [[a]] the set wavelength shorter than a wavelength of the semiconductor nanoparticles' absorption edge so that the surface of the semiconductor nanoparticles is dissolved and peeled by the size-selective photoetching, and particle sizes of the semiconductor nanoparticles are regulated and the semiconductor nanoparticles are monodispersed by the dissolution.~~

3. (Currently Amended) A method for purifying semiconductor nanoparticles, comprising the steps of:

modifying semiconductor nanoparticles with oil-soluble materials for surface modification;

converting the oil-soluble materials for surface modification into water-soluble materials for surface modification at the interface between an organic solvent and water;

shifting the semiconductor nanoparticles from an organic phase to an aqueous phase by the conversion;

removing impurities other than the semiconductor nanoparticles;

setting a wavelength of monochromatic light of to be shorter than a wavelength of absorption edge of the semiconductor nanoparticles having at least one desired particle size so as to dissolve and peel the surface of the semiconductor nanoparticles by size-selective photoetching, and thereby convert the materials for surface modification; and then

subjecting applying size-selecting etching to the semiconductor nanoparticles so as to dissolve and peel the surface of the semiconductor nanoparticles by size-selective photoetching, and convert the materials for surface modification by irradiating the semiconductor nanoparticles with monochromatic light of the set wavelength, the surfaces of which have been modified with the water-soluble materials for surface modification, to size-selective photoetching, wherein the semiconductor nanoparticles are irradiated with monochromatic light of a wavelength shorter than a wavelength of the semiconductor nanoparticles' absorption edge so that the dissolution caused thereby is utilized to peel the surface of the semiconductor nanoparticles, thereby converting the materials for surface modification.